International application No.

PCT/AU2004/001652

| Α.   | CLASSIFICATION OF SUBJECT MATTER   |  |                       |  |  |  |  |
|--|--|--|-----------------------|--|--|--|--|
| Int. Cl. 7:  | A61M 16/00   |  |                       |  |  |  |  |
| According to International Patent Classification (IPC) or to both national classification and IPC  |  |  |                       |  |  |  |  |
| B. FIELDS SEARCHED   |  |  |                       |  |  |  |  |
| Minimum documentation searched (classification system followed by classification symbols)  |  |  |                       |  |  |  |  |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  |  |  |                       |  |  |  |  |
| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI and keywords: apnea and control and mode and feedback and similar terms. |  |  |                       |  |  |  |  |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT   |  |  |                       |  |  |  |  |
| Category*  | Citation of document, with indication, where app   | ropriate, of the relevant passages   | Relevant to claim No. |  |  |  |  |
| Х  | US 5458137 A (AXE et al.) 17 October 199<br>Column 4 lines 48 to 65  |  | 1,10,12,<br>13,22,24  |  |  |  |  |
| X  | US 5937853 A (STRÖM) 17 August 1999<br>Column 4 line 54 to column 5 line 9   |  | 25,37,49,56           |  |  |  |  |
| Α  | US 5823187 A (ESTES et al.) 20 October 1998 Column 24 line 60 to column 25 line 17   |  |                       |  |  |  |  |
| <b>A</b> .   | US 2003/0121519 A1 (ESTES et al.) 3 July<br>Whole document   | 2003   |                       |  |  |  |  |
| X  | further documents are listed in the continuation   | of Box C X See patent family anne  | ex.                   |  |  |  |  |
| "A" docume   | sidered to be of particular relevance co   | ter document published after the international filing date or pronflict with the application but cited to understand the principle |                       |  |  |  |  |
|  | underlying the invention   |  |                       |  |  |  |  |
| or which   | alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other |  |                       |  |  |  |  |
| another citation or other special reason (as specified)  "O" document referring to an oral disclosure, use, exhibition or other means  "&" document member of the same patent family                       |  |  |                       |  |  |  |  |
| "P" document published prior to the international filing date but later than the priority date claimed   |  |  |                       |  |  |  |  |
| Date of the actual completion of the international search  Date of mailing of the international search report  |  |  |                       |  |  |  |  |
| 22 February 2005  2 8 FEB 2005   |  |  |                       |  |  |  |  |
| Authorized officer  AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA  DANIE MILIEM  Authorized officer  DANIE MILIEM   |  |  |                       |  |  |  |  |
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| C (Continuati | on). DOCUMENTS CONSIDERED TO BE RELEVANT   |                       |
|---------------|--|-----------------------|
| Category*     | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| Α.            | US 2003/0062044 A1 (BERTHON-JONES et al.) 3 April 2003<br>Whole document           |                       |
| A             | EP 788805 A2 (DeVILBISS HEALTH CARE, INC.) 13 August 1997<br>Whole document        |                       |
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| Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)  |
|---|
| This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:  |
| 1. Claims Nos.:   |
| because they relate to subject matter not required to be searched by this Authority, namely:  |
| because they letate to subject limited not required to be scaleded by this realization, mainly,   |
|   |
| ·   |
|   |
| 2. Claims Nos.:   |
| because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically: |
|   |
|   |
|   |
| 3. Claims Nos.:   |
| because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)  |
|   |
| Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)  |
| This International Searching Authority found multiple inventions in this international application, as follows:   |
| See additional sheet.   |
|   |
|   |
|   |
| As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.  |
| 2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.   |
| As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:          |
|   |
|   |
|   |
| 4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is  |
| restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  |
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| $\cdot$   |
| Remark on Protest  The additional search fees were accompanied by the applicant's protest.  |
| r—  |
| No protest accompanied the payment of additional search fees.   |

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| Supplemental |
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(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: II

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are different inventions as follows:

- 1. Claims 1 to 36 and 49 to 55 are directed to treating sleep disordered breathing using an inner control loop to provide treatment and an outer control loop to monitor the effectiveness of the treatment. It is considered that the use of inner and outer control loops comprises a first "special technical feature".
- 2. Claims 37 to 48 and 56 to 62 are directed to treating sleep disordered breathing using one of at least two treatment modes, and changing between the modes if necessary. It is considered that the use of two treatment modes comprises a "second special technical" feature.

Since the abovementioned groups of claims do not share any of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept, a priori.

Information on patent family members

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent Document Cited in<br>Search Report |            | Patent Family Member |            |    |            |      |            |
|---|------------|----------------------|------------|----|------------|------|------------|
| US  | 5458137    | AU                   | 21892/92   | AU | 66296/94   | CA   | 2111324    |
|   |            | CA                   | 2159336    | EP | 0592492    | EP   | 0699085    |
|   | ,          | US                   | 5203343    | US | 6085747    | wo   | 9222244    |
|   |            | wo                   | 9423780    |    |            |      |            |
| US  | 5937853    | EP                   | 0774269    | JР | 9168595    |      |            |
| US  | 5823187    | AU                   | 14276/99   | AU | 29268/92   | AU   | 30678/95   |
|   |            | AU                   | 30679/95   | AU | 38508/93   | AU   | 39130/95   |
|   |            | AU                   | 62221/90   | AU | 98118/98   | CA   | 2024477    |
|   |            | CA                   | 2122590    | CA | 2162981    | EP   | 0425092    |
|   |            | EP                   | 0610405    | EP | 0714670    | EP   | 1004325    |
|   | ·          | EP                   | 1270036    | JР | 3222963    | JР   | 8257016    |
|   |            | US                   | 5148802    | US | 5239995    | . US | 5313937    |
|   |            | US                   | 5433193    | US | 5492113    | US   | 5551418    |
|   |            | US                   | 5632269    | US | 5803065    | US   | 5901704    |
|   |            | ·US                  | 5904141    | US | 5970975    | US   | 6029664    |
|   |            | US                   | 6305374    | US | 6427689    | US   | 6539940    |
|   | •          | US                   | 6629527    | US | 2002023645 | US   | 2003145856 |
|   | •          | US                   | 2004016433 | wo | 9308857    |      |            |
| US  | 2003121519 | AU                   | 30801/99   | CA | 2323455    | EP   | 1061981    |
|   |            | US                   | 5535738    | US | 5794615    | US   | 6105575    |
|   |            | US                   | 6609517    | wo | 9945989    | wo   | 2004047621 |
| US  | 2003062044 | AU                   | 12185/99   | AU | 91392/98   | EP   | 1028769    |
|   |            | EP                   | 1502618    | NZ | 504595     | US   | 6367474    |
|   |            | US                   | 6502572    | US | 6817361    | wo   | 9924099    |
| EP  | 0788805    | NONE                 |            |    |            |      | •          |
|   |            |                      |            |    |            |      |            |

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX